

Activity 8.1

Name _____ Date _____ Hour _____

Unit Word Search

Student Materials

Pencil

Directions

Fill in the blank with the correct term from the word bank. Find each word within the word search.

- _____ 1. Where the milk is actually produced within the mammary gland
- _____ 2. Holding area in the mammary system
- _____ 3. The first milk a cow produces after calving is called _____.
- _____ 4. The portion of the milk that rises to the top is _____.
- _____ 5. The solid portion that is left after milk is curdled and strained is referred to as _____.
- _____ 6. Milking period
- _____ 7. A naturally occurring sugar in milk
- _____ 8. Hormone that starts the milk letdown reflex
- _____ 9. Term for a cow that has been bred and begins to show signs of pregnancy
- _____ 10. The watery portion left after milk is curdled and strained is the _____.
- _____ 11. A cow can pass her traits to numerous offspring each year through _____ transfer.
- _____ 12. Available in reduced-fat, low-fat, and fat-free
- _____ 13. Cream that has been treated with lactic acid-producing bacteria is _____ cream.
- _____ 14. The most popular breed of dairy cow in the United States is the _____.
- _____ 15. A British breed that originated on the Isle of Jersey

- _____ 16. Breed that has milk noted for its golden color
- _____ 17. Breed that originated in Scotland
- _____ 18. A cow's _____ has four compartments.
- _____ 19. There are more than 400 varieties of natural _____ .
- _____ 20. Fluid milk products may be _____ with Vitamin D.
- _____ 21. Common flavor of milk
- _____ 22. A dairy product that makes a tasty beverage is _____ milk.
- _____ 23. A popular cultured dairy product
- _____ 24. Frozen dairy product made with a mix of syrup or fruit juice
- _____ 25. Product made from pasteurized cream

Word Bank

aveoli
Ayrshire
butter
cheese
chocolate
cisterns
colostrum

cream
curds
embryo
fortified
Guernsey
Holstein
Jersey

lactation
lactose
malted
milk
oxytocin
sherbet
sour

springer
udder
whey
yogurt

H G Z S M S C D T G K L V E V N E N P N X G
 E Z E I U H F E T K K F C I S T E R N S E C
 N M L R E H B I J R M N Y M A L L W S G S B
 G K B E I R Y F O M U R O L K K J K O P O G
 S O S R E H Q I O X T G O I B Q M P X D T V
 P E X H Y V S T G K Y C O V T A H K N C C Y
 R W S J I O G R K L O T H Y E A Q E J Z A H
 I H T E H C E O Y H N O O R Y S T G A R L G
 N E P R F P J F C A L R C C Z E L C U R D S
 G Y E S N R E U G S N E M B I B D K A B W T
 E A V E O L I U T R W T R R C N D E T L A M
 R L W Y P C S E D S Q T S M U R T S O L O C
 U T S W K Z I Z P D O U R U O S N Q B H H V
 G W K A G N I A N T E B W M G T X O O J G B
 W H H S U A V E F Q Y R K A S A F S S H C O

Activity 8.2

Name _____ Date _____ Hour _____

Research a Dairy Cattle Breed

Student Materials

Pencil and paper or computer/printer

Resources to research breeds

Examples:

Online sites

Books

Magazines

Personal interviews

Directions

Choose a beef cattle breed that you are interested in finding out more about. You may choose a breed listed in the unit or one from another source such as the Oklahoma State University Breeds of Livestock website <http://www.ansi.okstate.edu/breeds/cattle/>.

Write a paper over the breed that is at least two pages in length. Answer questions about the breed in your paper such as:

- Why did you choose that specific breed?
- Where did the breed originate?
- When was the breed introduced to the United States?
- What color is the breed?
- What are some distinguishing characteristics of the breed?
- What are considered to be some strong points of the breed? (Example: Good mothers/milkers)
- How common is the breed in the United States?
- What is the breed association?
- Does the breed association publish a magazine?
- If you were to go into the dairy business, would you purchase this breed? Why or why not?

Activity 8.3

Name _____ Date _____ Hour _____

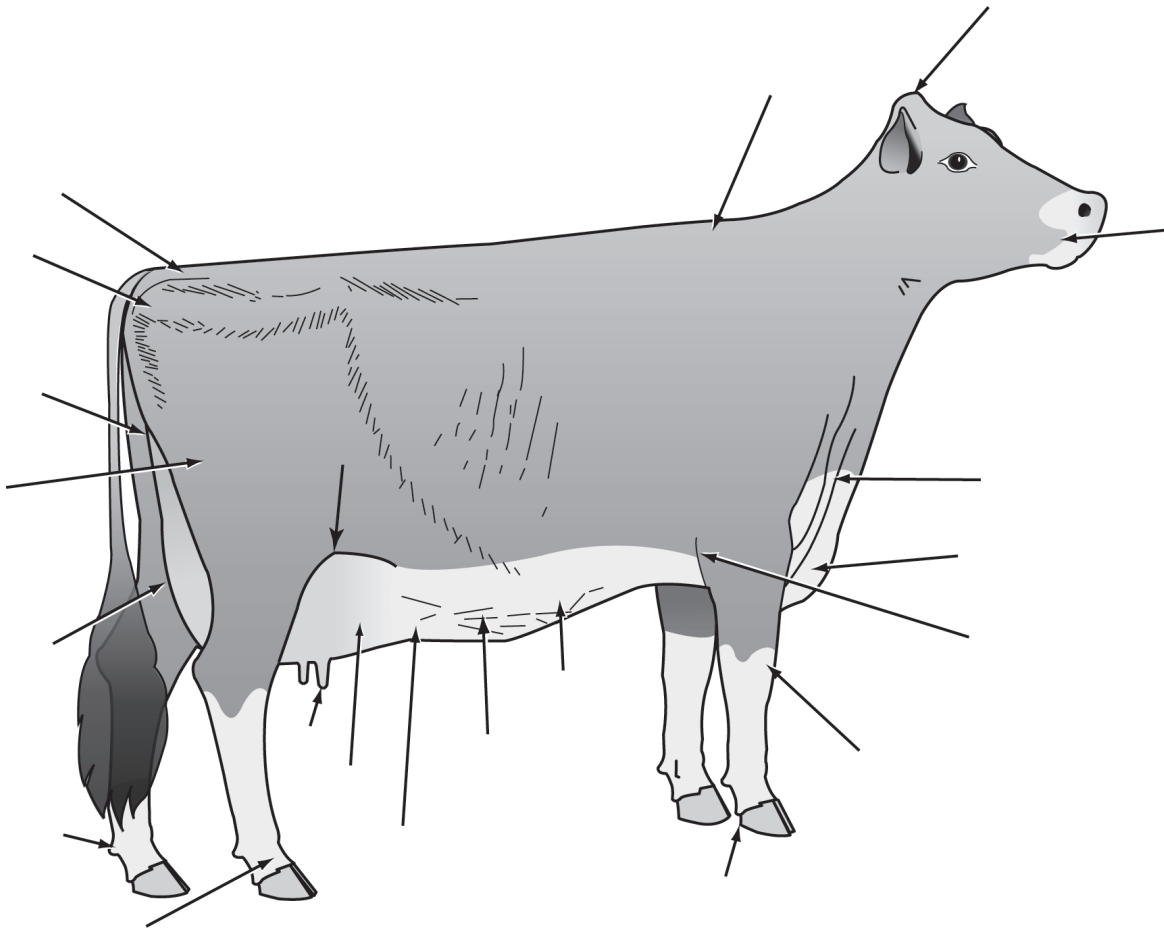
Label Parts of a Dairy Animal

Student Materials

Pencil

Directions

Write the parts of a dairy animal next to the arrows.



**Activity
8.4**

Name _____ Date _____ Hour _____

Dairy Products Poster

Student Materials

Resources for research (Internet, magazines, books)

Supplies to make a poster of consumer dairy products

Examples:

Pencil or markers

Paper

Magazines

Photos

Directions

Make a poster of consumer dairy products. You may draw products or cut out labels, photos, or advertisements for the poster. Include at least ten consumer dairy products. Include a description of each item. Record your resources below.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Activity 8.5

Name _____ Date _____ Hour _____

Make Ice Cream or Butter

Equipment and Supplies

One Serving of Ice Cream in a Bag

Measuring cups and spoons
½ cup milk (or ¼ cup milk and ¼ cup whipping cream or heavy cream)
¼ teaspoon vanilla
1 Tablespoon sugar
4 cups crushed ice
4 Tablespoons salt (can use rock salt)
½ cup water
1 1-quart size plastic sealable freezer bag
1 1-gallon size plastic sealable freezer bag
Duct tape
Hand towel, oven mitt, or gloves
Plastic tablespoon and serving dish
Ice cream toppings (if desired)

One-Quarter Pound of Butter

Clean container with a lid (such as a mayonnaise jar)
Half pint of pasteurized whipping cream or heavy cream
Cooking thermometer
Colander or strainer
Spatula
Container for the buttermilk
Salt and/or spices for flavor, such as garlic powder (optional)
Knife for spreading the butter
Bread, biscuits, or crackers

IMPORTANT: Wash your hands before beginning the activity.

Directions

To make ice cream in a bag:

1. Mix together the milk, cream (if using cream), vanilla, and sugar in the one-quart plastic bag.
2. Close the bag, while removing as much of the air as possible. Removing the air helps keep the bag from coming open later. Seal the top edge of the plastic bag with a piece of duct tape.
3. Place the one-quart plastic bag with the ingredients inside a one-gallon plastic bag. Place the ice inside the bag. Pour in the water and sprinkle the salt on top.
4. Close the top of the plastic freezer bag, while allowing as much air as possible to escape. Also, seal the top edge of the bag with a piece of duct tape.
5. Using a towel, oven mitt, or gloves to protect your hands, shake and massage the bag, ensuring ice surrounds the ingredients. Continue shaking the bag for 5 to 8 minutes or until the ice cream is frozen.
6. Open the outer plastic bag and discard the salt and ice. Rinse off the plastic bag containing the ice cream.
7. Open the smaller bag, squeeze the ice cream into a dish, and eat it with a plastic spoon.
8. Clean up your work area and put away the utensils and other supplies.

To make butter:

1. Set out a half pint of whipping cream or heavy cream until it is about 60 to 65 F (room temperature is acceptable). Using a cooking thermometer can help ensure the cream is the proper temperature. Cream that is allowed to remain at room temperature for 12 to 24 hours will create a stronger butter flavor.
2. Pour the cream into a plastic or glass jar container with a lid. The container should be about one-third to two-thirds full.
3. Shake the jar for 7 to 10 minutes. If you get tired, take turns with a classmate.
4. When butter forms, pour the contents of the container into a strainer or colander to drain away the buttermilk.
5. Rinse the butter by placing it in a bowl and gently rinsing it with small amounts of cold water. Stir and press the butter until all of the buttermilk trapped in the butter is rinsed away. Thoroughly rinsing the butter helps prevent rancidity.
6. Gently press all of the excess water out of the butter using a spatula.
7. You may blend in a pinch of salt, if you like. Salt helps to preserve the butter. Or, you may want to flavor the butter by adding a small amount of sugar, garlic, or other seasonings.
8. At this stage, the butter can also be shaped by pressing it into molds and placing it in the refrigerator to harden.
9. Spread the butter on bread, biscuits, or crackers.
10. Clean up your work area and put away the utensils and other supplies. Refrigerate the remaining butter. It's best to use the leftover butter within 48 hours.

Grading Criteria

Hands washed before handling the utensils and mixing the ingredients	4	3	2	1
Ingredients properly measured and mixed	4	3	2	1
Product is of a desirable consistency and taste	4	3	2	1
Work area cleaned and supplies put away	4	3	2	1

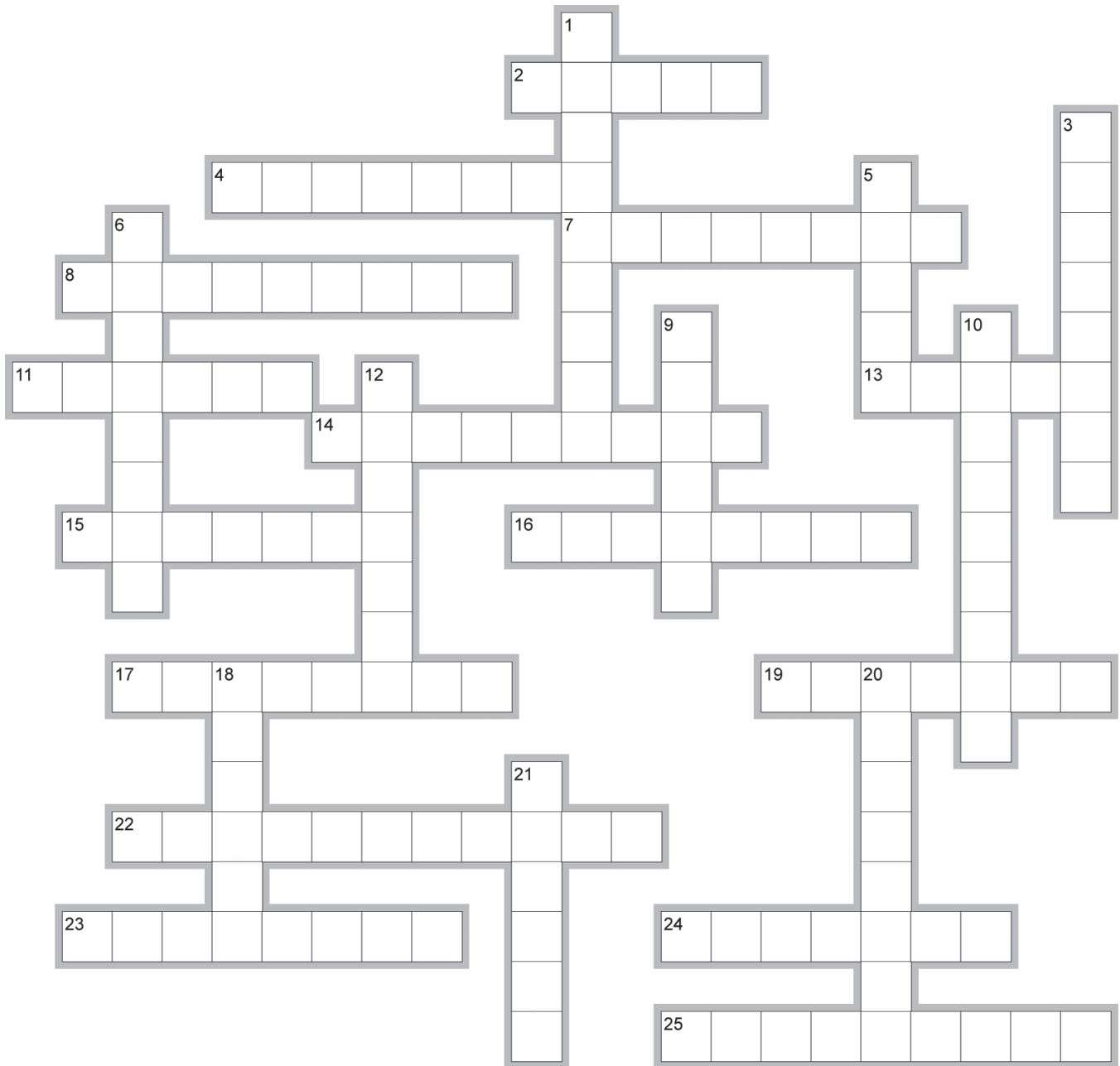
Key

- 4 Skilled** Can perform the task with no additional assistance
- 3 Moderately Skilled** Has performed the task during the class period; limited additional assistance may be required
- 2 Limited Skill** Has performed the task during the training program; additional assistance is needed
- 1 Unskilled** Is familiar with the process, but is unable to perform the task

**Activity
8.6**

Name _____ Date _____ Hour _____

Unit Review Crossword



EclipseCrossword.com

Across

2. Milk that has not had the fat content reduced
4. Cow that begins to show signs of pregnancy
7. Embryo ___ allows cows to pass traits to numerous offspring.
8. Nutrients vital to the health of a newly born calf are found in ___ .
11. Natural cheeses are made from this protein
13. The Brown ___ originated in Switzerland.
14. Type of milk that was a major food source during the Civil War
15. Popular cheese spread
16. Breed that originated in Scotland and is a particularly hardy breed
17. Hormone that starts the milk letdown reflex
19. Evaporated milk is often used for ___ .
22. Substances that keep liquids together
23. Yogurt contains live active ___ .
24. Naturally occurring sugar in milk
25. Milking period of a cow

Down

1. The Milking ___ is one of the oldest breeds in the world.
3. British breed that is a fawn color with white markings
5. Important part of a dairy cow
6. Large breed with distinctive black and white or red and white markings
9. About one-third of all milk produced in the U.S. is used to make ___ .
10. Electronic identification can be an injectable ___ .
12. Milking system that saves work and expense
18. A popular cultured product that can be found plain or with a variety of fruit flavorings is ___ .
20. State that is home to Braum's dairy
21. Breed that is famous for the amount of butter fat and protein in the milk